

6783. (New) Controlling flow of molten metal comprising the steps of:

providing a pressurizing conduit formed of graphite, a fragile material;

protecting said graphite by shrouding it in a jacket formed of suitable rugged material having heat endurance and ability to withstand mechanical and electrical shocks and stresses; and

interposing electrically non-conductive material in said jacket positioned for isolating said graphite from damage and from unwanted piping stresses and from mechanical and electrical shocks and stresses occurring in said jacket.

7084. (New) Controlling flow of molten metal comprising the steps of:

providing a pressurizing conduit formed of ceramic;

protecting said ceramic by shrouding it in a jacket formed of suitable rugged material having heat endurance and ability to withstand mechanical and electrical shocks and stresses; and

interposing electrically non-conductive material in said jacket positioned for isolating said ceramic from damage and from unwanted piping stresses and from mechanical and electrical shocks and stresses occurring in said jacket.

IN THE ABSTRACT:

Please replace the Abstract with the following amended Abstract.

Method precisely, quickly controls flow of molten metal to metal-casting apparatus by pumping, braking or throttling. The Faraday-Ampère principle of current flow in a unidirectional magnetic field is employed. Permanent magnets comprising neodymium or similar high-energy, rare-earth materials provide "reach-out" magnetism. These neo-magnets, usually shown as